

REMARKS

Claim 1 has been amended. Accordingly, Claims 1-30 remain presented for examination. Support for the amendment to claim 1 may be found in the Specification at page 17, paragraph [0078]. Accordingly, the amendment does not constitute new matter. Reconsideration of the application in view of the foregoing amendments and following comments is respectfully requested.

Summary of Interview

During the personal interview on February 27, 2006, Applicants discussed potential amendments to overcome the Section 103 rejection of record (US Patent No. 4,225,678 to Roy alone, or in view of US Patent No. 5,965,626 to Tzeng et al.). Possible insertions of limitations from dependent claims were also discussed.

Rejections under 35 U.S.C. § 103

The Examiner rejected Claims 1-24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,225,678 (Roy) alone, or in view of U.S. Patent No. 5,965,626 (Tzeng et al.), both of record.

According to M.P.E.P. 2143.03, “[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” Claim 1 as amended recites that the first and second intermediate mixtures are segregated from each other, then **forced through impingement dispensing heads** and mixed, resulting in a controlled reaction and expansion. Passage of the intermediate mixtures through impingement dispensing heads is neither taught nor suggested by the cited references which teach only mechanical mixing (agitation) of components.

In the present method, the two intermediate mixtures are forced through impingement heads. The use of impingement heads results in release of the mixtures at high pressure, thereby causing contact and thorough mixing of the intermediate mixtures. This process allows for enhanced control of the reaction so that the reaction 1) is not so violent as to expand beyond a mold into which the reaction mixture is placed; and 2) does not happen too fast, resulting in partial curing prior to filling a mold. See page 18, paragraph [0079]. The use of the separate impingement heads for each of the two reaction mixtures allows the reaction to be controlled, so

that it can proceed at a rate which allows the method to work for its intended purpose, namely the production of molded articles such as roofing tiles and ridge caps.

Moreover, the method disclosed in the cited references could not have been modified to use impingement dispensing heads due to the rapid and violent nature of the reaction that occurs when the asphalt, polyols and other components are mixed together all at once. M.P.E.P. 2143.01 states that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Once the components are mixed together as disclosed in Roy and Tzeng et al., it would not be possible to pass this mixture through impingement dispensing heads because significant solidification and/or curing would have occurred, which would clog the impingement dispensing heads. Thus, modification of the method taught by the cited references with impingement dispensing heads would not allow the methods to work for its intended purpose. Thus, the cited references provide no suggestion or motivation to make the claimed modification.

Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the rejections under 35 U.S.C. § 103(a).

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CONCLUSION

In view of the foregoing amendments and comments, it is respectfully submitted that the present application is fully in condition for allowance, and such action is earnestly solicited. If any minor issues remain which could be resolved by telephone, the Examiner is invited to contact the undersigned at the number provided below.

Respectfully submitted,

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